offenders may be prosecuted to the fullest extent of the law.

測試報告 **Test Report** 

號碼(No.) : CE/2008/C2427 日期(Date) : 2008/12/16 頁數(Page) : 1 of 23

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

## 以下測試樣品係由客户送樣, 且由客户聲稱並經客户確認如下 (The following samples was/were submitted and identified by/on behalf of the client as):

樣品名稱(Sample Description) COPPER CLAD LAMINATES : 樣品型號(Style/Item No.) : CEM-3-92/VU BLOCK CEM-3-92 收件日期(Sample Receiving Date) : 2008/12/9 測試期間(Testing Period) : 2008/12/9 TO 2008/12/16

測試結果(Test Results)

結論(Conclusion)

- : 請見下一頁 (Please refer to next pages).
- : 根據客户所提供的樣品,其鎬、鉛、汞、六價鉻、多溴聯苯及多溴聯苯醚的 測試結果符合RoHS(2002/95/EC)及其修定指令之要求 (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Hexavalent Chromium Cr(VI), PBBs and PBDEs are compliant with the limits of RoHS Directive 2002/95/EC and its subsequent amendments).

Chenyu Kung / Operation Manager Signed for and on behalf of

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### <u>測試結果(Test Results)</u>

測試部位(PART NAME) NO.1 : 黄色板子 (YELLOW SHEET)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限値 (Limit)
鎘 / Cadmium (Cd)	mg/kg	参考IEC 62321/2nd CDV (111/95/CDV) 方法,用感應藕合電漿原子發射光譜儀 (ICP-AES) 檢測鎬含量./With reference to IEC 62321/2nd CDV (111/95/CDV).Determination of Cadmium by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321/2nd CDV (111/95/CDV) 方法,用感應藕合電漿原子發射光譜儀 (ICP-AES) 檢測鉛含量./With reference to IEC 62321/2nd CDV (111/95/CDV).Determination of Lead by ICP-AES.	2	n.d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321/2nd CDV (111/95/CDV) 方法,用感應藕合電漿原子發射光譜儀 (ICP-AES) 檢測汞含量./With reference to IEC 62321/2nd CDV (111/95/CDV).Determination of Mercury by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	針對非金屬材質之樣品,參考IEC 62321/2nd CDV (111/95/CDV) 方法檢測, 用UV-VIS檢測六價鉻含量. / With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium for non-metallic samples by UV-Vis Spectrometry.	2	n.d.	1000
鋮 / Beryllium (Be)	mg/kg	參考US EPA 3050B 方法,用感應耦合電 漿原子發射光譜儀檢測鈹含量. / With reference to US EPA Method 3050B for Beryllium Content. Analysis was performed by ICP-AES.	2	n.d.	_

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SGS Taiwan Ltd

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台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限値 (Limit)
多氯聯苯 / Polychlorinated Biphenyls (PCBs) (CAS No.: 001336-36-3)	mg/kg	參考US EPA 3540C方法,以氣相層析質 譜儀(GC/MS)檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	_
多氯三聯苯 / Polychlorinated Terphenyls (PCTs)	mg/kg	参考US EPA 3540C方法,以氣相層析質 譜儀(GC/MS)檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.5	n.d.	-
多氣奈 / Polychlorinated Naphthalene (PCNs)	mg/kg	參考US EPA 3540C方法,以氣相層析質 譜儀(GC/MS)檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	5	n.d.	-
氯化石蠟 / Chlorinated Paraffin (C10~C13) (CAS No.: 010871-26-2)	%	參考US EPA 3540C方法,以氣相層析質 譜儀(GC/MS)檢測. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	0.01	n.d.	-
聚氯乙烯 / PVC	* *	以紅外光譜分析及焰色法檢測. / Analysis was performed by FTIR and FLAME Test.	-	Negative	_
福馬林 (甲醛) / Formaldehyde (CAS No.: 000050-00-0)	mg/kg	參考DIN 53315方法,以高效液相層析儀 /二極體陣列偵測器檢測./With reference to DIN 53315.Analysis was performed by HPLC/DAD.	3	n.d.	-
2-(3', 5'-二叔丁基-2'-羟基苯基)苯並 三氮唑 / 2-(3,5-di-tert-butyl-2- hydroxyphenyl)-2H-benzotriazole (CAS No.: 003846-71-7)	mg/kg	參考US EPA 3540C方法,以氣相層析質 譜儀檢測之. / With reference to US EPA 3540C method. Analysis was performed by GC/MS.	5	n.d.	-
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS) PFOS — Acid PFOS — Metal Salt PFOS — Amide	mg/kg	參考US EPA 3540C: 1996方法,以液相 層析質譜儀檢測全氟辛烷磺酸含量./ With reference to US EPA 3540C: 1996 method for PFOS Content. Analysis was performed by LC/MS.	10	n.d.	-

# 測試報告 **Test Report**

NAN YA PLASTICS CORPORATION

南亞塑膠工業股份有限公司

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 3 of 23



法規

方法偵測

Member of the SGS Group (SGS SA)

八溴聯苯醚 / Octabromodiphenyl ether

九溴聯苯醚 / Nonabromodiphenyl ether

十溴聯苯醚 / Decabromodiphenyl ether

陽起石 / Actinolite (CAS No.: 013768-

棕石棉 / Amosite (CAS No.: 012172-73-

offenders may be prosecuted to the fullest extent of the law.

石棉 / Asbestos

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Test Report	
南亞塑膠工業股份有限公司	

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目

(Test Items)

		層析質譜儀檢測全氟辛酸(銨)含量. / With reference to US EPA 3540C: 1996 method for PFOA Content. Analysis was performed by LC/MS.	10		
多溴聯苯總和 / Sum of PBBs			-	n.d.	100
一溴聯苯 / Monobromobiphenyl			5	n.d.	-
二溴聯苯 / Dibromobiphenyl			5	n.d.	-
三溴聯苯 / Tribromobiphenyl		參考IEC 62321/2nd CDV (111/95/CDV) 方法,以氣相層析儀/質譜儀檢測多溴聯 苯和多溴聯苯醚含量./With reference to IEC 62321/2nd CDV (111/95/CDV).Determination of PBB and PBDE by GC/MS.	5	n.d.	-
四溴聯苯 / Tetrabromobiphenyl			5	n.d.	-
五溴聯苯 / Pentabromobiphenyl			5	n.d.	-
六溴聯苯 / Hexabromobiphenyl			5	n.d.	-
七溴聯苯 / Heptabromobiphenyl			5	n.d.	-
八溴聯苯 / Octabromobiphenyl			5	n.d.	-
九溴聯苯 / Nonabromobiphenyl			5	n.d.	-
十溴聯苯 / Decabromobiphenyl			5	n.d.	-
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		-	n.d.	100
一溴聯苯醚 / Monobromodiphenyl ether			5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether			5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether			5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether			5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether			5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether			5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether			5	n.d.	-

單位

(Unit)

mg/kg

%

%

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#### 號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 4 of 23

测試方法

(Method)

參考US EPA 3540C: 1996方法,以液相

參考NIOSH 9000 / X光繞射定性分析法

(XRD) / As per NIOSH 9000 method.

參考NIOSH 9000 / X光繞射定性分析法

(XRD) / As per NIOSH 9000 method. Analysis was performed by XRD.

Analysis was performed by XRD.

法規

限值

(Limit)

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結果

(Result)

NO.1

n.d.

n.d.

n.d.

n.d.

Negative

Negative

5

5

5

1

1

方法偵測

極限值

(MDL)

10

SGS	

測試報告

全氟辛酸(銨) / PFOA

SG

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限値 (Limit)
白石棉 / Chrysotile (CAS No.: 012001- 29-5)	%	參考NIOSH 9000 / X光繞射定性分析法 (XRD) / As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	-
青石棉 / Crocidolite (CAS No.: 012001- 28-4)	%	参考NIOSH 9000 / X光繞射定性分析法 (XRD) / As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	-
透閃石 / Tremolite (CAS No.: 014567- 73-8)	%	参考NIOSH 9000 / X光繞射定性分析法 (XRD) / As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	-
斜方角閃石 / Anthophyllite (CAS No.: 017068-78-9)	%	參考NIOSH 9000 / X光繞射定性分析法 (XRD) / As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	-
有機錫 / Organic-tin compounds 三丁基錫 / Tributyl Tin (TBT) (CAS No.: 000688-73-3)	mg/kg	本測試參考DIN 38407-13方法,以氣相 層析儀/火焰光度偵測器檢測./With reference to DIN 38407-13. Analysis was performed by GC/FPD.	0.03	n.d.	-
三苯基錫 / Triphenyl Tin (TphT) (CAS No.: 000668-34-8)	mg/kg	本測試參考DIN 38407-13方法,以氣相 層析儀/火焰光度偵測器檢測./ With reference to DIN 38407-13. Analysis was performed by GC/FPD.	0.03	n.d.	-
偶氮 (AZO) 1): 4-氨基二苯 / 4-AMINODIPHENYL (CAS No.: 000092-67-1)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
2): 聯苯胺 / BENZIDINE (CAS No.: 00092-87-5)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
3): 4-氯鄰甲苯胺 / 4-CHLORO-O- TOLUIDINE (CAS No.: 000095-69-2)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 5 of 23

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
4): 2-萘 <b>胺</b> / 2-NAPHTHYLAMINE (CAS No.: 000091-59-8)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
5): 鄰氨基二甲基偶氮 / O- AMINOAZOTOLUENE (CAS No.: 000097-56-3)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
6): 對硝基鄰甲苯胺 / 2-AMINO-4- NITROTOLUENE (CAS No.: 000099-55-8)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
7): 對氯苯胺 / P-CHLOROANILINE (CAS No.: 000106-47-8)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
8): 4-甲氧基-間苯二胺 / 2,4- DIAMINOANISOLE (CAS No.: 000615-05-4)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
9): 4,4'-二氨基二苯甲烷 / 4,4'- DIAMINODIPHENYLMETHANE (CAS No.: 000101-77-9)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
10): 3,3'-二氯聯苯胺 / 3,3'- DICHLOROBENZIDINE (CAS No.: 000091-94- 1)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
11): 3,3'-二甲氧基聯苯胺 / 3,3'- DIMETHOXYBENZIDINE (CAS No.: 000119- 90-4)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 6 of 23

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號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 7 of 23

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測試項目	單位	測試方法	方法偵測 極限値		法規 限值
(Test Items)	(Unit)	(Method)	他们 (MDL)	(Result) NO.1	下医和胆 (Limit)
12): 3,3'-二甲基聯苯胺 / 3,3'- DIMETHYLBENZIDINE (CAS No.: 000119-93- 7)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
13): 3,3'-二甲基-4,4'-二氨基二苯甲烷 / 3,3'-DIMETHYL-4,4'- DIAMINODIPHENYLMETHANE (CAS No.: 000838-88-0)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
14): 2-甲氧基-5-甲基聯苯 / P-CRESIDINE (2-METHOXY-5-METHYLANILINE) (CAS No.: 000120-71-8)	mg/kg	本測試參考LMBG 82.02-2方法, 以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
15): 4,4'-亞甲基雙(氯苯胺)/ 4,4'- METHYLENE-BIS- (2-CHLOROANILINE) (CAS No.: 000101-14-4)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
16): 4,4'-氧化雙苯胺 / 4,4'- OXYDIANILINE (CAS No.: 000101-80-4)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
17): 4,4'-硫代雙苯胺 / 4,4'- THIODIANILINE (CAS No.: 000139-65-1)	mg/kg	本測試參考LMBG 82.02-2方法, 以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
18): 鄰甲苯胺 / O-TOLUIDINE (CAS No.: 000095-53-4)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
19): 2,4-二氨基甲苯 / 2,4- TOLUYLENEDIAMINE (CAS No.: 000095-80- 7)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-

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# 測試報告 **Test Report**

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限値 (Limit)
20): 2,4,5-三甲基苯胺 / 2,4,5- TRIMETHYLANILINE (CAS No.: 000137-17- 7)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
21): 鄰位甲氧基苯胺 / O-ANISIDINE (CAS No.: 000090-04-0)	mg/kg	本測試參考LMBG 82.02-2方法, 以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	_
22): 對氨基偶氮苯 / P-AMINOAZOBENZENE (CAS No.: 000060-09-3)	mg/kg	本測試參考LMBG 82.02-2方法, 以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	_
23): 2,4-二甲基苯胺 / 2,4-XYLIDINE (CAS No.: 000095-68-1)	mg/kg	本測試參考LMBG 82.02-2方法,以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
24): 2,6-二甲基苯胺 / 2,6-XYLIDINE (CAS No.: 000087-62-7)	mg/kg	本測試參考LMBG 82.02-2方法, 以氣相 層析質譜儀(GC/MS)檢測. / With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	-
可塑劑定量分析 / Phthalates					
鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 000117-81-7)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 000084-74-2)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸丁酯苯甲酯 / BBP (Benzyl butyl phthalate) (CAS No.: 000085-68- 7)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.003	n.d.	-

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 8 of 23



測試報告	
Test Report	

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 9 of 23

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限值 (Limit)
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 028553-12-0)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 026761-40-0)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.01	n.d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 000117-84-0)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.003	n.d.	-
鄰苯二甲酸二己酯 / DNHP (Di-n-hexyl phthalate) (CAS No.: 000084-75-3)	%	本測試參考EN 14372: 2004, 以氣相層 析儀/質譜儀檢測之. / With reference to EN 14372: 2004. Analysis was performed by GC/MS.	0.003	n.d.	-
氫氯碳化物 / HFC (Hydrofluorocarbon)					
氫氟碳化物(HFC)-23 (CHF3)CAS No.: 000075-46-7)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物(HFC)-32 (CH2F2)(CAS No.: 000075-10-5)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物(HFC)-41 (CH3F)(CAS No.: 000593-53-3)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物(HFC)-43-10mee (C5H2F10)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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氫氟碳化物(HFC)-125 (C2HF5)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-134 (C2H2F4)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-134a (CH2FCF3)(CAS No.: 000811-97-2)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-143 (CH3F3)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-143a (CH3F3)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-152a (C2H4F2)(CAS No.: 000075-37-6)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-227ea (C3HF7)(CAS No.:	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
000431-89-0)		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			
氫氟碳化物(HFC)-236fa (C3H2F6)	mg/kg	參考US EPA 5021方法,以氣相層析質譜	1	n.d.	-
		儀(GC/MS)檢測. / With reference to			
		US EPA 5021 method. Analysis was			
		performed by GC/MS.			

單位

(Unit)

## **Test Report** 南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION

201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目

(Test Items)

測試報告

台北市敦化北路201號

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 10 of 23

测試方法

(Method)



結果

(Result)

NO.1

法規

限值

(Limit)

方法偵測

極限值

(MDL)

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 11 of 23

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限値 (Limit)
氫氟碳化物(HFC)-236ea (C3H2F6)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物(HFC)-245ca (C3H3F5)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物(HFC)-245fa (C3H3F5)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
氫氟碳化物(HFC)-365mfc (C4H5F5)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氯碳化物 / PFCs (Perfluorocarbon)					
四氟甲烷 / F14 (CAS No.: 000075-73-0)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
六氟乙烷 / Fluorocarbon 116 (CAS No.: 000076-16-4)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
八氟丙烷 / Freon 218 (CAS No.: 000076- 19-7)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
十氟丁烷 / Decafluorobutane (CAS No.: 000355-25-9)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

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## **Test Report** 南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION

台北市敦化北路201號 201 TUNG HWA NORTH ROAD, TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) NO.1	法規 限値 (Limit)
八氟環丁烷 / Freon C318 (CAS No.: 000115-25-3)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟-1-丁烯 / Perfluor-1-butene (CAS No.: 000357-26-6)	mg/kg	參考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟異丁烯 / perfluorisobutene (CAS No.: 000357-26-6)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
1,4-二氫八氟丁烷 / 1,4- dihydrooctafluorobutane (CAS No.: 000377-36-6)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
2-全氟甲基丁烷 / nonafluor-2- (trifluoromethyl)butane (CAS No.: 000594-91-2)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟戊烷 / perfluoro-n-pentane (CAS No.: 000678-26-2)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
2-全氟甲基戊烷 / 2- perfluoromethylpentane (CAS No.: 000355-04-4)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-
全氟己烷 / perfluorohexane (CAS No.: 000355-42-0)	mg/kg	参考US EPA 5021方法,以氣相層析質譜 儀(GC/MS)檢測. / With reference to US EPA 5021 method. Analysis was performed by GC/MS.	1	n.d.	-

號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 12 of 23

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測試報告

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號碼(No.) : CE/2008/C2427 日期(Date) : 2008/12/16 頁數(Page) : 13 of 23

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#### 備註(Note):

- 1. mg/kg = ppm; 0.1wt% = 1000ppm
- 2. n.d. = Not Detected (未檢出)
- 3. MDL = Method Detection Limit (方法偵測極限值)
- 4. "-" = Not Regulated (無規格値)
- 5. \*\*= Qualitative analysis (No Unit) 定性分析(無單位)
- 6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
- 7. Negative = 陰性 (< 1.0 %), Positive = 陽性 (> 1.0 %)
- 8. 若為氯化石蠟中單一化合物,則偵測極限為5ppm (The MDL is 5ppm for the single compound of CP)

## PFOS参考資訊(Reference Information): 指令 2006/122/EC (Directive 2006/122/EC)

- (1) 該物質不可置於市場上或使用於特殊物質或配置成分重量濃度等於或大於0.005%. (May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.)
- (2) 該物質不可置於市場上的半成品或商品或其物件; 假若零件上明顯地具有PFOS並參照結構上及微細構造上計算 PFOS重量濃度等於或大於0.1%,而紡織品或其他覆蓋物質,如果PFOS在覆蓋物質中含量等於或大於1µg/m<sup>2</sup>. (May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than  $l\mu g/m^2$  of the coated material.)

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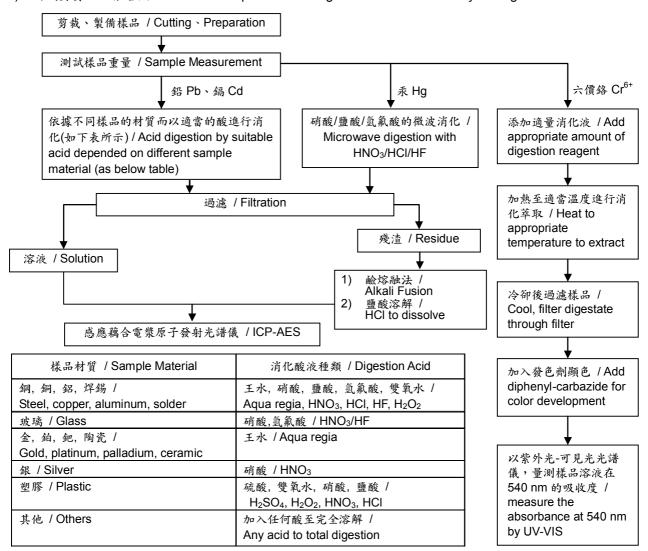
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測試報告

**Test Report** 

- 1) 根據以下的流程圖之條件,樣品已完全溶解。( 六價 鄉試方法除外 ) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)
- 2) 测試人員:楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人:張啓興 / Name of the person in charge of measurement: Troy Chang



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號碼(No.) : CE/2008/C2427 日期(Date) : 2008/12/16 頁數(Page) : 14 of 23

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號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 15 of 23

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## 多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

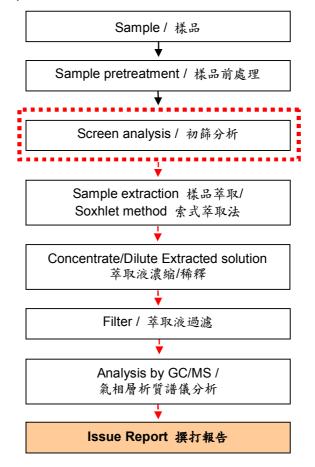
1) 测試人員: 翁賜彬 / Name of the person who made measurement: Roman Wong

2) 測試負責人: 陳新智 / Name of the person in charge of measurement: Shinjyh Chen

初次測試程序 / First testing process -

選擇性篩檢程序 / Optional screen process .....

確認程序 / Confirmation process - - - ►



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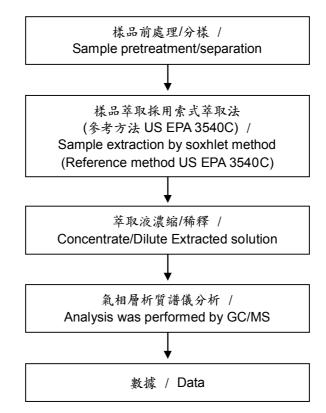


號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 16 of 23

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## 可塑劑分析流程圖 / Analytical flow chart of phthalate content

- 1) 測試人員:徐毓明 / Name of the person who made measurement: Andy Shu
- 2) 測試負責人:陳新智 / Name of the person in charge of measurement: Shinjyh Chen



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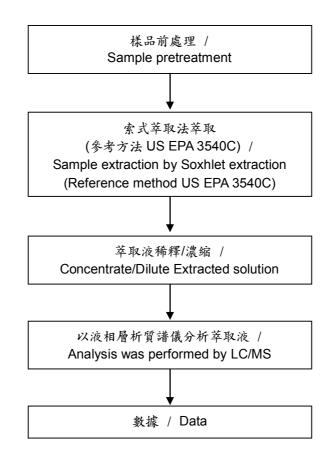


號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 17 of 23

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## 全氟辛酸(銨)/全氟辛烷磺酸分析流程圖/ Analytical flow chart of PFOA/PFOS content

- 1) 測試人員:劉家瑗 / Name of the person who made measurement: Carrie Liu
- 2) 测試負責人: 陳新智 / Name of the person in charge of measurement: Shinjyh Chen



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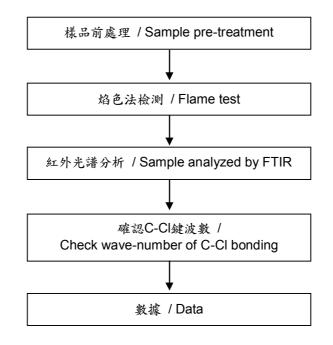
號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 18 of 23

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## 聚氯乙烯物質判定分析流程圖 /

## Analysis flow chart for determination of PVC in material

- 1) 测試人員: 趙婉愉 / Name of the person who made measurement: Eva Chao
- 2) 測試負責人:陳新智 / Name of the person in charge of measurement: Shinjyh Chen



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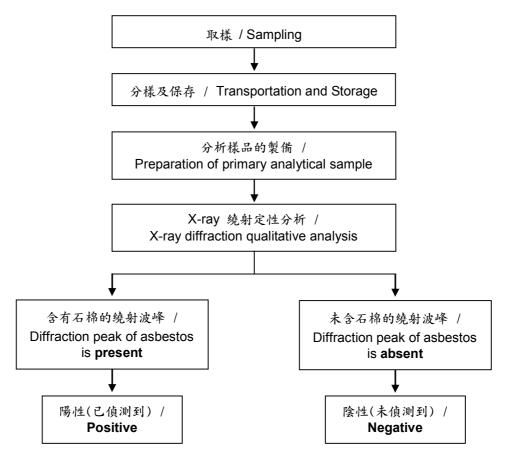
號碼(No.) : CE/2008/C2427 日期(Date) : 2008/12/16 頁數(Page) : 19 of 23

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石棉物質判定分析流程圖 /

## Analysis flow chart for determination of Asbestos

- 1) 測試人員:高鍵忠 / Name of the person who made measurement: Victor Kao
- 2) 測試負責人: 盧義龍 / Name of the person in charge of measurement: James Lu



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- 1) 根據以下的流程圖之條件,樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) 測試人員:楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人:張啓興 / Name of the person in charge of measurement: Troy Chang

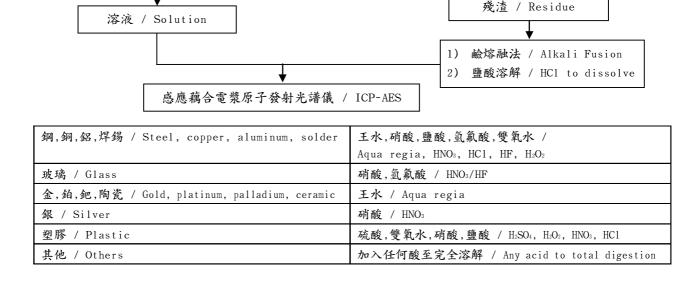
#### 元素的消化流程圖 (Flow Chart of Digestion for elements analysis)

剪裁、製備樣品 / Cutting / Preparation

測試樣品重量 / Sample Measurement

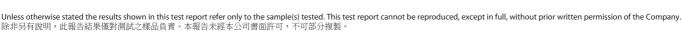
依據不同樣品的材質而以適當的酸進行消化(如下表所示) / Acid digestion by suitable acid depended on different sample material (as below table)

過濾 / Filtration



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號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 20 of 23

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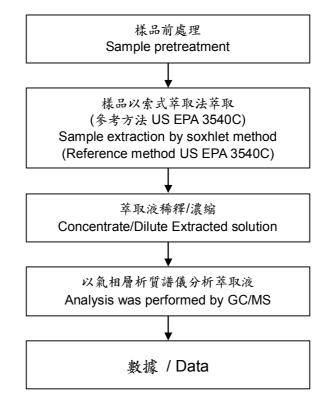
號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 21 of 23

苯並三唑類化合物分析流程圖 /

## Analytical flow chart of benzotriazole content

1) 测試人員:劉家瑗 / Name of the person who made measurement: Carrie Liu

2) 测試負責人:陳新智 / Name of the person in charge of measurement: Shinjyh Chen



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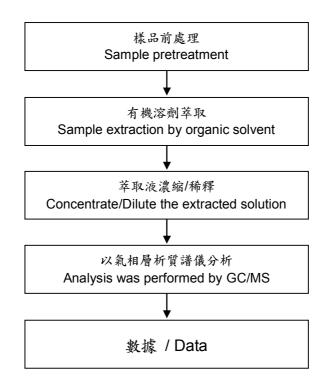
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號碼(No.) : CE/2008/C2427 日期(Date) : 2008/12/16 頁數(Page) : 22 of 23

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## 含氯阻燃劑分析流程 / Chlorinated Flame retardant analytical flow chart

- 1) 测試人員:劉桓易 / Name of the person who made measurement: Max Liu
- 2) 測試負責人:陳新智 / Name of the person in charge of measurement: Shinjyh Chen
- 参考方法(Reference method): US EPA 8270D, US EPA 3540
- 測試項目(Test Items): PCBs, PCNs, PCTs, Mirex, CP, MCCP / 多氯聯苯, 多氯奈, 多氯三聯苯, 滅蟻靈, 氯化石蠟, 中鏈氯化石蠟



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號碼(No.): CE/2008/C2427 日期(Date): 2008/12/16 頁數(Page): 23 of 23

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